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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/345,335	07/01/1999	STEPHANIE A. E. GUERLAIN	H16-25553	1129

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EXAMINER

TRAN, MYLINH T

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/345,335

Applicant(s)

STEPHANIE GUERLAIN

Examiner

Mylinh T Tran

Art Unit

2174

-- Th MAILING DATE of this communication appears on the cov r sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-21,23-25 and 27-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,7-13,15-21,23-25,27-33 and 35-51 is/are rejected.
- 7) ☒ Claim(s) 14 and 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Applicant's Amendment filed 08/22/02 has been entered and carefully considered. Claims 40-51 have been added. However, limitations of new claims have not been found to be patentable over prior art of record; and arguments regarding rejections under 35.U.S.C 103 have not been found to be persuasive. Therefore, these claims are rejected under the same ground of rejection as set forth in the Office Action mailed (05/22/02).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7-13, 15-17, 19, 21, 23-25, 27-33, 35-38, 40-41 and 43-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al. [US. 4,675,147] in view of Harrow et al. [US. 5,375,199].

As to claims 1, 3, 4, 21, 23, 24, 40, 43, 47 and 51, Schaefer et al. teaches a gauge axis (figure 1, column 9, lines 39-53), a graphical shape displayed along the gauge axis representative of a value of the corresponding process variable relative to the process limit values (figure 1, column 3, lines 50-67) and a first pair of high and low limit elements representative of engineering hard high and low limit values (controlled variables) for the corresponding process variable, where the first pair of high and low limit elements are displayed on the gauge

axis (figure 1, engineering high limits (18-25), engineering low limits (26-33), column 8, line 30 through column 9, line 7); further wherein each of the plurality of graphical devices is displayed in proximity to one of the manipulated and controlled variables (column 13, line 46 through column 14, line 35); and a graphical symbol representative of an optimization characteristic for the corresponding process variable (column 17, lines 4-49). The difference between Schaefer et al. and the claim is a second pair of high and low limit elements representative of operator set high and low limit values elements (manipulated variables). Harrow et al. teaches the second pair of high and low limit elements (figure 13A, 206, 208, column 2, lines 38-44, column 19, lines 1-10). It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer et al. and Harrow et al. before them at the time the invention was made to modify the gauge axis and the graphical shape taught by Schaefer et al. to include the user defining high and low limits of Harrow et al., in order to enhance users to understand the variable base on graphical indication effectively, as taught by Harrow et al.

As to claims 5 and 25, Schaefer et al. shows the first pair of parallel lines extending orthogonal to the gauge axis on (column 11, lines 38-64) and Harrow et al. shows the representative of operator set high and low limit values are displayed at a shorter length than and between the first pair of parallel lines extending orthogonal to the gauge axis representative of engineering hard high and low limit values along the gauge axis and the at least one pair of high and

low limit elements is a pair of parallel lines extending orthogonal to the gauge axis (figures 13A and 13B). It is inherent that the user low and high limit values would be inside the engineering high and low limits since they are set for safety. As to claims 7 and 27, Schaefer et al. demonstrates the graphical shape is positioned adjacent one of the first or second pair of high and low limit elements when the value for the corresponding process variable is within a certain-range of the engineering hard high and low limit values or the operator set high and low limit values (figure 1, column 8, lines 44-59). It is inherent that if the corresponding process variable is within a certain-range of the engineering high and low limit value (figure 1), then the graphical shape is positioned adjacent the first pair of high and low limit elements.

As to claims 8 and 28, In combination of Schaefer et al. and Harrow et al., they also demonstrates the graphical shape is positioned outside of the parallel lines of the second pair of high and low limit elements when the value for the corresponding process variable is outside the high and low process limit values by a predetermined percentage (figure 1, 16, column 8, lines 36-59). In combination of Schaefer et al. and Harrow et al. (figure 13A), the graphical shape is positioned outside of the parallel lines when the value for the corresponding process variable is outside the high and low process limit values. As to claims 9 and 29, Schaefer et al. a graphical symbol representative of an optimization characteristic for the corresponding process variable (figures 5 and 6, column 11, lines 28-36, column 12, lines 12-25 and column 12, lines 35-52).

As to claims 10, 11, 30, 31, 44, 45, 48 and 49, Schaefer et al. also shows the graphical user display of claim 9, wherein the graphical symbol is representative of a corresponding process variable to be maximized and the graphical symbol is representative of a corresponding process variable to be maximized (column 17, lines 4-17).

As to claims 12, 32, 46 and 50, Schaefer et al. discloses the graphical symbol is representative of a corresponding process variable which is to be held at a resting value (column 13, lines 1-20).

As to claims 13 and 33, Schaefer et al. also discloses the at least one graphical device further includes a graphical symbol representative of the corresponding to process variable being constrained to set point (column 16, lines 25-51).

As to claims 15 and 35, Schaefer et al. also teaches the graphical shape is a circle positioned along the gauge axis (figure 1, column 9, lines 39-66).

Elements 9, 10, 11, 12, 13, 14, 15 and 16 are on the circle.

As to claims 16, Schaefer et al. demonstrates the graphical shape has a color of a set of colors that reflects the state of the current value for the corresponding process variables (column 17, lines 4-49).

As to claims 17 and 37, the claims are analyzed as previously discuss with respect to claim 1 (Schaefer et al., column 9, lines 39-53).

As to claims 19 and 41, Harrow et al. discloses a matrix display having the manipulated variables displayed along a first axis thereof and the controlled variables displayed along a second axis thereof, wherein each of the

manipulated and controlled variables includes a graphical device displayed in proximity thereto (figure 11B, column 18, lines 16-32).

As to claim 36, Schaefer et al. also discloses determining a state of a current value for the corresponding process variable and displaying the graphical shape in a color of a set of colors that reflects the determined state for the corresponding variable (column 15, lines 20-32).

As to claim 38, Harrow et al. also demonstrates the process is a continuous multivariable process being performed at a process plant, wherein the continuous multivariable is operable under control of at least manipulated variables and controlled variables of the one or more process variables, and further wherein the method includes: displaying a matrix display having the manipulated variables displayed along a first axis thereof and the controlled variables displayed along a second axis thereof; and displaying a graphical device in proximity to each of the manipulated variables and controlled variables (column 5, lines 10-36 and column 6, lines 30-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18, 20, 39 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al. [US. 4,675,147] in view of Harrow et al. [US. 5,375,199] and further in view of van Weele [US. 5,631,825].

As to claim 18, the difference between Schaefer et al. in view of Harrow et al. and the claim is the process is a continuous multivariable process being performed at a process plant. van Weele et al. teaches the process is a continuous multivariable process being performed at a process plant, wherein the continuous multivariable process is operable under control of at least manipulated variables and controllable variables of the one or more process variables (column 14, lines 11-26). It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer et al. and Harrow et al. before them at the time the invention was made to modify the gauge axis and the graphical shape taught by Schaefer et al. and the user defining high and low limits of Harrow et al., to include the continuous multivariable process being performed at a process plant of van Weele et al., in order to provide data input means for selecting one of a set of preselected process primitives, and means for indicating a value for the selected process primitive and substituting the input value for that primitive as the value to be monitored and controlled by the PPC, as taught by van Weele et al.

As to claim 20, van Weele et al. demonstrates each graphical device displayed is selectable for navigation to more detailed information for process variable,

corresponding to the selected graphical device, wherein the detail information is displayed on the same screen therewith (column 36, lines 12-19).

As to claim 39, van Weele shows receiving user input to select a displayed graph selected and graphical device, wherein the detailed information is displayed on the same screen with the graphical device (column 40, lines 65-67 and column 41, lines 1-11).

Allowable Subject Matter

Claims 14 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

These claims would be allowable because the prior arts fail to teach or suggest the graphical symbol representative of the corresponding process variable being wound up.

Response to Arguments

Regarding claims 1, 4, 21 and 24, Applicant has argued that Schaefer and Harrow fail to disclose "both a first pair of high and low limit elements representative of engineering hard high and low limit values and a second pair of high and low limit elements representative of operator set high and low limit values for a corresponding process variable". However, Schaefer shows the first pair of high and low limit elements at figure 1, engineering high limits (18-25), engineering low limits (26-33), column 8, line 30 through column 9, line 7; and Harrow shows the second pair of high and low limit elements

representative of operator set high and low limit values for a corresponding process variable at figure 13A, 206, 208, column 2, lines 38-44, column 19, lines 1-10.

For the argument "Applicant are unable to fully understand what the Examiner asserts is the motivation to combine the recited documents in the statement".

This is the motivation to combine Schaefer and Harrow: "It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer et al. and Harrow et al. before them at the time the invention was made to modify the gauge axis and the graphical shape taught by Schaefer et al. to include the user defining high and low limits of Harrow et al., in order to enhance users to understand the variable base on graphical indication effectively, as taught by Harrow et al."

Regarding claims 5 and 25, Schaefer et al. shows the first pair of parallel lines extending orthogonal to the gauge axis on (column 11, lines 38-64) and Harrow et al. shows the representative of operator set high and low limit values are displayed at a shorter length than and between the first pair of parallel lines extending orthogonal to the gauge axis representative of engineering hard high and low limit values along the gauge axis and the at least one pair of high and low limit elements is a pair of parallel lines extending orthogonal to the gauge axis (figures 13A and 13B). It is inherent that the user low and high limit values would be inside the engineering high and low limits since they are set for safety.

Regarding to claims 8 and 28, Applicant has argued that Schaefer et al. fails to teach displaying the graphical shape at position outside of the pair of parallel lines. However, this is not true. Schaefer et al. show the graphical shape is positioned outside of the parallel lines of the second pair of high and low limit elements when the value for the corresponding process variable is outside the high and low process limit values by a predetermined percentage (figure 1, 16, column 8, lines 36-59). In combination of Schaefer et al. and Harrow et al. (figure 13A), the graphical shape is positioned outside of the parallel lines when the value for the corresponding process variable is outside the high and low process limit values.

Regarding to claims 10, 11, 30 and 31, Applicant has argued that Schaefer et al. fail to show the graphical symbol representative of a corresponding process variable to be maximized or to be minimized. However, this is not true. The variable of values can be maximized or minimized by the operator (user) and the software engineer.

Regarding to claims 15 and 35, Applicant has argued that Schaefer fail to show the graphical shape of a circle positioned along the gauge axis. However, this is not true. Schaefer et al. teaches the graphical shape is a circle positioned along the gauge axis (figure 1, column 9, lines 39-66). Elements 9, 10, 11, 12, 13, 14, 15 and 16 are on the circle.

Regarding claim 19, Applicant has argued that Harrow does not show "a matrix display with manipulated variables displayed along a first axis and the

controlled variables displayed along a second axis". However, Harrow et al. discloses a matrix display having the manipulated variables displayed along a first axis thereof and the controlled variables displayed along a second axis thereof, wherein each of the manipulated and controlled variables includes a graphical device displayed in proximity thereto at figure 11B, column 18, lines 16-32. Applicant's attention is directed to the lines "the second interactive icon overlaid on an example graphic display of data, set to take action....The user can drag the slider up and down the vertical axis or y-axis to change its setting (and the values in the optional text boxes change accordingly).....whenever the cursor is over the slider to give an indication that it can be moved....".

Regarding claim 38, Applicant has argued that Harrow fail to teach "displaying a matrix display having manipulated variables displayed along a first axis of the matrix and the controlled variables displayed along a second axis of the matrix". However, Harrow teach the limitation at column 5, lines 10-36.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on

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the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires fax a response, (703) 746-7238), may be used for formal After Final communications, (703) 746-7239 for Official communications, or (703) 746-7240 for Non-Official or draft communications. NOTE, A Request for Continuation (Rule 60 or 62) cannot be faxed.

Please label "PROPOSED" or "DRAFT" for information facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mylinh Tran whose telephone number is (703) 308-1304. The examiner can normally be reached on Monday-Thursday from 8.00AM to 6.30PM

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If attempt to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Kristine Kincaid, can be reached on (703) 308-0640,

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Mylinh Tran

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Kristine Kincaid
KRISTINE KINCAID
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